

Synonym

VP4

Source

Rotavirus A (strain RVA/Human/United States/Wa/1974/G1P1A[8]) VP4 Protein, His Tag (VP4-R5243) is expressed from human 293 cells (HEK293). It contains AA Gly 26 - Asn 476 (Accession # P11193).

Predicted N-terminus: His

Molecular Characterization

Poly-his VP4(Gly 26 - Asn 476)
P11193

This protein carries a polyhistidine tag at the N-terminus.

The protein has a calculated MW of 52.9 kDa. The protein migrates as 65-85 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>90% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Formulation

Lyophilized from $0.22~\mu m$ filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

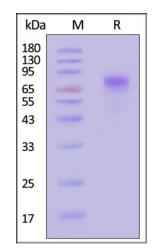
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

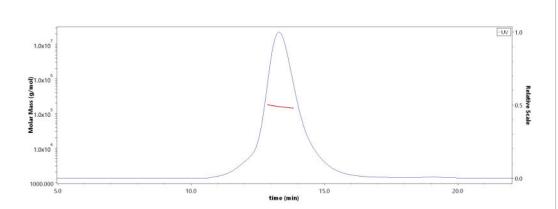
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Rotavirus A VP4 Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

SEC-MALS



The purity of Rotavirus A VP4 Protein, His Tag (Cat. No. VP4-R5243) is more than 90% and the molecular weight of this protein is around 145-175 kDa verified by SEC-MALS.

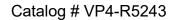
<u>Report</u>

Background

Rotavirus is the leading cause of severe, watery diarrhea in infants and children less than 5 years old. It is estimated that around three-quarters of infants and children had rotavirus diarrhea before the age of 12 months and over millions of them were hospitalized due to the rotavirus infection. The rotavirus has various structural



Rotavirus A VP4 Protein, His Tag (MALS verified)





viral protein (VPs) and non-structural protein (NSPs), among them, the VP4 and VP7 together determines the serotypes of the virus, with the VP4 determines the P-type and VP-7 determines the G-type. The reassortment of these proteins leads to the diversity of the rotavirus strains, making the VP4 and VP7 the important target for vaccine studies.

Clinical and Translational Updates

Please contact us via <u>TechSupport@acrobiosystems.com</u> if you have any question on this product.

